

Breathing

How does a vacuum cleaner work?

Why is there wind?

Why do you open a vent on a gas can?

How does a straw work?

How does air get into our lungs?

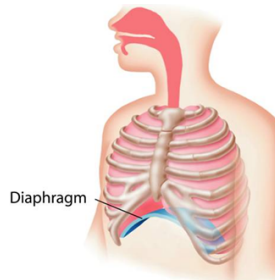
Breathing

Breathing is the movement of air into and out of the lungs.

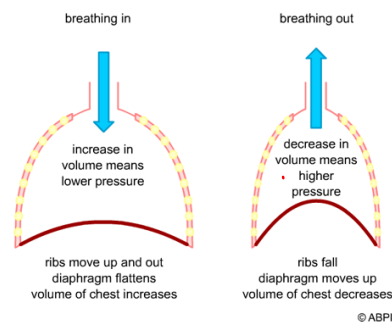
The force that drives air into the lungs comes from air pressure.

Lungs are sealed in pleural membranes inside the chest cavity.

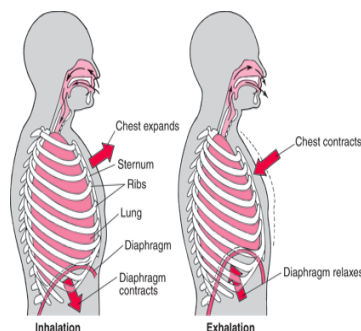
At the bottom of the cavity is a large, flat muscle known as the **diaphragm**.



- to breathe in the diaphragm contracts (moves down - flattens)
- the rib muscles (intercostals) contract (move up and out)
- these 2 movements create a larger chest volume (bigger space)



- which lowers the air pressure in the chest
- the atmospheric pressure surrounding you is a bit higher so air moves from this higher pressure area to the lower pressure area in your chest cavity
- your lungs are just collecting this air as it moves inward



* you explain how CO_2 gets out of the lungs

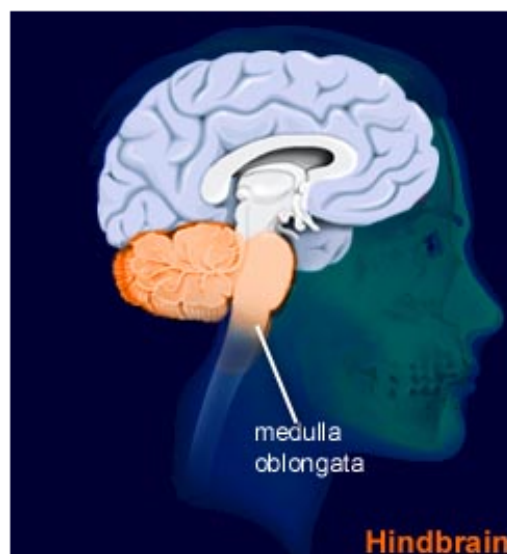
How Breathing Is Controlled

Breathing is controlled by the medulla oblongata.

The medulla oblongata monitors carbon dioxide in the blood.

As carbon dioxide increases, nerve impulses make the diaphragm contract, bringing air into the lungs.

The higher the carbon dioxide level, the stronger the impulses.



Page 961 - 963

1. How/why does smoking cause so many breathing/lung issues?
2. Why does Carbon monoxide cause problems with respiration?
3. Describe the following diseases: bronchitis, emphysema, and lung cancer.
4. Why can't someone suffocate themselves?